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# MICHIGAN FARMER,

## AND WESTERN HORTICULTURIST.

"AGRICULTURE IS THE NOBLEST, AS IT IS THE MOST NATURAL PURSUIT OF MAN."

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THE MICHIGAN FARMER,
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HENRY HURLBUT, EDITOR.

TERMS,

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For the Michigan Farmer.

EDITOR OF THE MICHIGAN FARMER:—

Permit me to enquire, what has become of all the former contributors of the Michigan Farmer? Where are Shearer, and Reynolds, and Wooden, and Lamb, and McLean, and Agricola, and Geo. W. Lee, and M. W. Up North, and M. W. Out East, and all—what has become of them? It is hardly to be supposed that they are all dead; and if not dead, why do they all with one accord withhold their contributions from the Farmer? Has it become of no importance to the farming interest that an agricultural paper should be sustained in Michigan? All sensible farmers feel its importance—and it is an implication of the good sense and inteligence of its former contributors to entertain the supposition for a moment. Its importance, then, being admitted, the question recurs, can it be sustained without the aid of its friends? It is not enough that we subscribe and pay for the paper, and induce all our friends to do the same, to sustain the paper and make it interesting and useful. We should be willing to give as well as to receive. Almost every farmer has facts that he might communicate, which would contribute to augment the fund of agricultural knowledge. The mighty Mississippi for its existence, is dependant upon the contributions of thousands of small streams and rivulets. So the mighty flood of agricultural knowledge which is destined to cover our land, depends upon a thousand small sources. No one man, be he editor, mechanic or farmer, has all knowledge. We are all mutually dependant upon the experience of others—and where we are all dependant, it is the duty of each to contribute for the benefit of all.

Now, Mr. Editor, all that is wanting to call to your aid the science and experience of the farmers of Michigan, is, first, to make them feel this dependance, and then they will realize their obligations. The Farmer is designed for the latitude of Michigan, and its columns should be filled with matter adapted to our situation. And to what source shall we look for such matter?—To the contributors of our Eastern agricultural papers? Our pride of State and self-respect should revolt at the idea. Besides, much of the matter of those papers is not adapted to the situation of Michigan farmers. The soil of our prairies and openings requires very different management from most of the farming lands East.—It is then to the experience of the farmers of our own beloved State, that we are to look, and let me add, with confidence, look, for the information adapted to our wants.

Our self-respect should feel wounded at the idea of the Farmer, the only agricultural sheet issued in Michigan, going forth to the East, its columns freighted with matter selected wholly from their own papers—not a contribution from all the farmers of Michigan. This circumstance is calculated to give the impression abroad, either, that we have no farmers in Michigan capable of writing anything worthy of publication in the Michigan Farmer, or that we feel no interest in sustaining such a publication. Neither of those positions is true.

We have farmers well qualified to write upon agricultural science; and there are very many who feel a deep interest in sustaining the Farmer, and will do all they can, (except, perhaps, writing for its columns,) to encourage it. There are many friends of the Farmer of my acquaintance, of science and experience, well qualified to communicate instruction to their brethren, the cultivators of the soil, but whose *bump* of *approbativeness* or *self-esteem* is not sufficiently developed to enable them to overcome that diffidence which every modest man feels, in appearing before the public, for the first time, in newspaper publications. Let those whose sense of justice and importance of sustaining our own agricultural paper is strong enough to overcome this diffidence, first begin and forward the productions of their science and experience, and then others will follow. One essay will beget another—one man's experience will call out that of another—this farmer's theory will elicit that of another farmer, and in this way all matters pertaining to our interests as farmers, will come to be discussed, and each will be benefited by the wisdom of all, and our paper will become a credit to the State, and a blessing to its inhabitants.

I have written hastily, Mr. Editor, but I think sufficiently explicit to be understood by your readers, and I hope they will be admonished by a weak brother to do their duty, as farmers and as citizens of Michigan, by the Farmer, aid the Editor by their means, extend its circulation by their efforts, and encourage him by their contributions for publication; and finally, come one, come all, up to the help of the new Proprietor and Editor of the Michigan Farmer—and I promise that they shall soon again hear, if not from me, from a friend of mine, Out East.

O. K.

For the Michigan Farmer.

## Miscellaneous Notices.

BY HON. S. V. R. TROWBRIDGE.

MR. HURLBUT,—

The occupations of a farmer are so various, and the business allotted to the different seasons of the year so numerous, that little can be said in a single communication. Although much has been done for Agriculture within a few years past, yet how much remains; we seem just on the threshold of improvement. It has been my pursuit and study so far through life, and I feel a lively interest in all which concerns it.

I came into Michigan twenty four years ago, and commenced on the farm I now occupy. I have visited every county in the State containing white inhabitants, and consider this Peninsula remarkably well adapted to farming purposes. I believe it as good for wheat as old Schoharie, or Western New York, in their palmiest days, when forty bushels of wheat per acre was often the product; and certainly no country can surpass it for sheep. I have kept sheep twenty years, and it seems no climate in the world can be more healthy for this profitable animal. The butchers in Detroit say our mutton is equal to any in the United States; and when we receive forty two cents per pound for wool, it speaks well for the quality of the article.

The staples of Michigan seem to be wheat and wool, and all information respecting their culture and production, will be of service. I pursue a rotation of crops—one of the course, clover—and from actual experiment I find corn can be grown upon a clover sod, at one half the expense of a crop of it upon stubble land. For four years I have sown the Grand River plaster upon meadows and pasture land, and am convinced it quadruples the crop of hay or pasture. It produces little or no effect sown upon wheat in the spring.

One secret in raising good crops, sown broad cast, is to have the soil well pulverized; and for this purpose, the double thirty six tooth harrow is well adapted—and another is in deep ploughing. A farmer in this town, who always pursues this course, never fails in wheat.

I believe farmers should often change their seed, particularly wheat; the best will soon degenerate, when sown annually upon the same farm. I know districts in Pennsylvania, where the practice for years has been, to change their seed wheat annually. The most popular kinds of wheat here are the Hutchinson, or crate wheat, the velvet bearded, and the red chaff bearded.—Flint wheat has not succeeded so well.

We have found lime to be a certain preventive against the ravages of rats: a small portion sown upon the outer edges of each layer of sheaves will certainly stop their course.

It is idle for farmers to sow wheat after the month of September. The land had better remain for spring crops. I know from often repeated experiment, the expense and labor is lost, to sow old land after September, and as soon as the month commences wheat should be sown.

I would advise all farmers to be particularly careful (through the winter,) of the cows expected to give milk. If they would have good cows, let them keep them well through the winter.—One cow well wintered, is worth two poorly kept, for milk and butter the next summer; and the same with sheep. Those well kept, increase in quantity and quality, of both the wool and the carcase. Farmers know these things, but it seems needful to remind them, and stir them to duty.

Very much depends upon utensils, and I have witnessed some fine improvements in labor saving implements. In buying tools, the dearest are generally the cheapest. We have, in this county, a new subsoil plough, invented by Mr. Aaron Smith of Birmingham, which has received the approbation of farmers universally. It is a double plough upon one beam—the forward plough small, and furnished with a coulter, to plough four inches, and the other, about the common size, to plough six inches deeper. It works well, particularly upon worn out lands.

I should like to say something upon the breeding of horses: but my communication is extending to an unreasonable length. I have done well in raising horses, and the expense of breeding a pair of two hundred dollar horses is inconsiderable.

S. V. R. T.

Oakland County, Feb. 10, 1845.

Wealth breeds a pleurisy, ambition a fever, liberty a vertigo, and poverty is a dead palsy.

For the Michigan Farmer.

## Hints to the Cultivator of Fruits.

Mr. Editor :—The apple in this country is subject to the attack of the borer ; many orchards in this section of the State have been much injured by them. They commence their depredations generally, and I am inclined to think uniformly, upon the westerly side of the trunk or body of the tree. They are usually found between the bark and the wood and fixed upon the albumen. One fact with regard to these depredators is not perhaps generally known : it is this: they pass by those trees that are vigorous and healthy, and attack those that are stinted and unhealthy. They seldom attack a standing hickery tree, but cut it down, and after four or six months remove the bark, and you will find the tree covered with them. This fact suggests a remedy against their attacks, which is, to keep the trees healthy and vigorous by thorough and careful cultivation. The Quince and Plum, especially the former, are subject to their attacks.

A Horticulturist.

## Management of Breeding Ewes and Lambs.

Mr. Tucker—Your private request that I should give you my experience in the management of breeding ewes, has been some time delayed. A full account would require too long a chapter for your paper. The accompanying notes are hastily and briefly given.

The nature and combinations of the various points and parts of the ram, should of course be well considered, and impressed on the mind of the breeder, in order that he may always rear and preserve those animals to the greatest advantage, paying the strictest attention to build and constitution, and to the preservation of the quantity and quality of the fleece.

It is very hard to find and retain all of the following qualities in one ram, or a stock of sheep, viz: Round build, wide chest, large belly, round and full behind, wide tail near the body, large but short legs, long body, short back, large but short neck; wool fine, very thick, and very long and oily, wool thick on the belly, the inner part of the legs mostly covered, and run quite even from the shoulders to the ham, free from jarr or long coarse hairs, of good length and thickness on the outer part of the fore and hind legs down to the knees and gambrel joints, short head, but wide between eyes, which should be full and bright. In my judgment, a stock getter of this description is worth his weight in silver to any breeder that keeps one hundred ewes.

There is a great difference in the disposition of the merino race. Some of them are naturally more tame and docile than others. It is quite important to obtain a stock getter of a gentle and quiet disposition. An improved disposition indicates an aptitude to convert their food into flesh or fat. A good disposition is very meritorious in the breeding of ewes as well as wethers; those most gentle are in the best state at lambing time. There are several circumstances that are supposed to form or contribute to this goodness of disposition in these animals. They must be well bred, or come from such as have good properties; breeding in-and-in, or in the same line, greatly contributes to form disposition.—Ewes should be carefully selected before put to breeding. Choose such as are the most perfect, and that possess in the highest degree those properties or qualities which are wanted. If the ewes produce wool of a short staple, breed from a buck of a different character. A judicious selection as regards build, should also be attended to at the time they are turned to the ram, if it has not been done before.

Ewes of good age, and the best milkers, should be selected first for the ram, leaving the younger ones to be placed with him about ten days later. Sixty ewes are enough for a young ram, and 150 to 200 may be put to an older one. It is best to throw out the ewes as fast as they are tupped. The ram should be grained some time previous and during service. Early lambing is mostly advantageous where the circumstances of the farm will admit of it. In Vermont, the month of May is considered the best month for the lambs to drop. Ewes should have the wool well clipped away from the udders previous to the dropping of the lambs, and they will rear their lambs better to shear them as early in June as practicable, according to the weather. It has a tendency to dry up the milk, carrying their fleece into the hot days. Ewes should not be allowed to range in long pastures while the lambs are young: forty at this season is as many as should be kept together, and if the flock is less, it would be better for various reasons. Ewes should be examined early in the morning, and see that the lambs just dropped, are capable of sucking, which is commonly readily decided by the distension of the belly. When the lamb becomes chilled, it may be resuscitated by placing it in warm water, and next, rub it with cloths till dry, give him no milk until he calls for it, and then he may have all that nature requires without injury; milk from a farrow cow is not suituble to feed young lambs. Ewes may give too little milk, especially when they drop their lambs early in the spring. In such cases, it well pays to aid the lambs by milk fed from a bottle a few days. Their milk may be greatly increased by feeding them turneps, potatoes or similar green food. Given to those that drop their lambs early, the growth of the lambs is greatly promoted, which is of much future importance, for when they are stunted at this early period of their existence, they never turn out so well afterward. With the root corps may be fed preserved after-grass or rowen; oats, corn or oil meal may be made use of for the winter food of breeding ewes. Red and white clover are of much consequence as spring food for breeding ewes; no sort of pinching sheep stock answers any good purpose : food in abundance should always be provided, and good water should constantly be at hand. Those ewes that first take the ram, it is profitable to mark off, that they may be early selected and extra care taken with the early lambs.

Merino ewes in good order are apt to give a plenty of milk, and will take care of their lambs. In case she does not own her lambs, shut her into a small pen, and make her stand to suckle the lamb a few times, which will generally bring her to natural affection: Some recommend tying up the ewe and let a dog bark at them, which frightens them into obedience and affection for their offspring.

It sometimes happens that ewes with an abundance of milk lose their lambs. It may be profitable to provide her with another that does not fare as well: to effect this, place the skin from the dead lamb over the body of the live one, and the unfortunate mother will own it. The skin need not remain on more than a day or two.

As soon as a lamb becomes smart, his tail should be taken off; the best way is to turn the animal on his back and hold his hind legs. The operator takes hold of the tail with the left hand, but is cautious not to pull it. Then place the knife across the tail about one inch from the body, near the intersection of the two cords with the tail; thon with the edge of the knife, shove up the skin about one third of an inch; when the edge strikes between the joint, immediately cut it off. By this process, the skin will project beyond the bone, and of course heal much sooner. By cutting off the tail as the lamb stands on his feet, the wool prevents the cutting readily, and by pulling the tail as is usual, it leaves the bone to project beyond the skin, and thus prevents the healing some days. The ewe lambs should be cut shorter than the wethers.

In respect to the business of castrating or gelding the lambs, it should be performed early, as there is less danger of too much inflamation taking place. The pouch should be taken off pretty close to the body, and when the operation is attended to early, there is no need of any application to the wound.

The lambs should be immersed in a decoction of tobacco water, say five pounds of good tobacco steeped in a sufficient quantity to dip one hundred. This should be attended to about one week after the ewes are clipped, to destroy all the ticks which have by this time found shelter in the lamb's fleece.

Three months and a half or four months is as long as is profitable for the lamb to draw milk from the ewe. Turn them into fresh and sweet feed reserved for the purpose, either pasture or meadow, at a distance from the ewes, out of hearing; if possible, there should be no water in the lot, as they may over satiate and injure themselves. In order that the young stock suffer no check, they should have good feed and a plenty of it. The milk should be drawn from the ewes within four or five days after weaning, to prevent any bad consequence by the udder swelling.

The best way to get a smart and even lot of lambs is to put out the buck *only in the day time* with the ewes. I sometimes put out the bucks two or three hours each day with the flock, stabling them the remaining part of the time.

The method of turning a number of rams into one flock is highly exceptionable, as tending to prevent the main object and injure both sexes.

Sheep are very sympathetic animals, and have more to do in making their progeny than any other species. Therefore to insure the lamb to be struck off after the fashion of the sire, he should be placed with the ewes in the day time only.

By placing ewes in full vigor with rams deficient in constitution, you will produce more females than males. To effect the contrary, let your rams be of full age, and robust, placed with old or young ewes that are not in full maturity, and bucks will be multiplied more than ewes.

Merino ewes should not be allowed to breed until the third year. Their time of gestation is about five months, and are able to produce three births within two years. Those that are backward in taking the ram, the best means to be employed, are those of good stimulating keep.

Covered sheep folds are often of very great advantage in securing and protecting both ewes and their lambs. Lambs should by no means be winter stocked with the ewes ; being weaker, they cannot have an equal chance at the food.

In order to guard against the injury of the sheep fly, which is more troublesome to breeding ewes, many breeders in this vicinty, make use of Scotch snuff, thrown up the nose by a common syringe—a pound of snuff is mixed with eight quarts of water—one-half gill is sufficient for each nostril. It requires two hands to operate expeditiously. The head of the sheep partly enters a frame constructed for that purpose, and secured fast to receive the injection. The time selected for this operation, is the fall season.—Those sheep that are affected with the grub in the head, occasioned by this fly, may be sought out during the winter and spring months. They exhibit a general stupidity and dullness—stand rather drooping. The viscid matter that flows from the nose is sometimes of a bloody color.—Good keeping during the summer months is the greatest preventative for this and most diseases that trouble the sheep family.

Respectfully yours,

S. W. Jewett.

*Weybridge, Vt.*, Dec. 7, 1844.

—*Cultivator.*

A Recipe for Steeping Wheat.—Put a false bottom and top into a tub; then put in two bushels of seed wheat, on this, pour on one pailful of hot water in which 1 lb. of saltpetre has been dissolved, then throw on a pail of water wherein 4 quarts of stone lime has been quenched; directly after this, put in as much mudgel hole water as will swim four or six inches on the top of the grain—add two quarts of common salt and let the wheat soak in this liquor from six in the evening to six of the clock in the morning—if you have time, it will be rather better if you put it in one evening, and take it out the next, and let it be all night on the floor. Next morning, slaked lime must be by degrees sifted in and mixed with the wheat, and then it is fit to sow directly. Our usual way is to stir the grain well about the tub just before we take it out, that the light kernels may swim on the top, and with the seeds of weeds (if any) be skimmed off. The great profit and convenience then, of this imbibition of grain is manifested in its curing and preventing smut, fertilizing and causing the seed to branch into many stalks, forcing it almost at once, bringing it forward for early reaping, and making the crop of grain more spirituous by impregnating it, the farina, with a more vital quality.

## The Dairy.—New England Butter Making.

We extract from the report and statements presented by the committee of the Essex Agricultural Society, on the Dairy, such portions as will be most interesting to our readers.—*Sal. Gaz.*

"The Committee on the Dairy, in presenting their report, would remark that the first prerequisite in making good butter, is to have good cows; and to be sure in this respect, every farmer should test the value of each cow by milking and preserving her milk separately, and noting carefully the quantity required to make a pound of butter. By a very little attention in this way, it may be very readily ascertained whether a cow is worth keeping for dairy purposes. Cases have occurred where a cow has been kept for years with several others, and their milk put together: on using it separately, it was found that butter could not be made from it. Thus for the want of attention in this respect, much loss may be sustained. There are undoubtedly many cows kept which add little or nothing to the value of the dairy.

The kind and quantity of salt used, is of much consequence. The Liverpool bag salt should be rejected: it contains impurities, and will not preserve butter. Rock salt, thoroughly pulverized, and three-fourths of an ounce used to a pound of butter, will preserve it well."

PROCESS OF MAKING BUTTER BY THOSE WHO GAINED THE SOCIETY'S PREMIUMS.

By Gro. W. Dodge.—The milk is strained into tin pans, where it stands from thirty-six to forty-eight hours, when it is skimmed and the cream put into tin pails, standing on the bottom of a cool cellar. A little salt is added to the cream, which is frequently stirred. We churn twice a week. When the butter comes, the buttermilk is thoroughly worked out, and the butter, salted with an ounce to the pound. After twenty four hours it is again worked and weighed.

By Mrs. Abi Worcester.—The cream was churned twice a week, then the butter was washed in cold water. One ounce of fine butter salt was used to one pound of butter, and well worked in. After it had remained twenty-four hours, it was worked over, and packed down solid in a stone pot, and covered with strong brine.

By Paul Pilsbury.—The milk is strained into tin pans and stands thirty-six hours. The cream is then taken off and put into a tin firkin, and kept until it is ready to be churned, which is twice a week. The butter is well rinsed in cold water, and then salted with one ounce of salt to a pound of butter. In about twenty-four hours it is worked again, and packed down, and kept on the bottom of the cellar, covered with fine salt.

By Allen W. Dodge.—Strain the milk in pans, place them in a cool cellar for the cream to rise; when sufficiently risen, which will be according to the weather, separate the cream from the milk, and the day previous to churning, lower the cream in tin pails or cans, into a well, in order to become cool. By this means, the butter will come of a hard consistency, and no difficulty experienced in working it thoroughly.

Mode of Churning.—Rinse the churn with cold water over night. The time occupied in churning when the cream is cold, is greater than it were not subjected to the process of cooling, but the quality and condition of the butter amply repay for the time and labor expended upon it. Churn once a week.

The method of freeing the butter from the milk, is by thoroughly working the butter with the hands. Rinsing it with cold water, in the churn, we have seldom practiced, from the conviction that the butter is injured by this process. The day after being worked over, it is put into lumps of one pound each, for market.

For salting, use the ground rock salt, and salt to suit the taste. Add no saltpetre, sugar, or other substances.

By Nath'l Felton.—The milk is strained into tin pans: it stands from 36 to 48 hours in a cool cellar, when the cream is taken off, put into tin pails, and stirred every day.

Churn once a week. During the warmest weather, the cream is placed in the well about 12 hours before churning. After it is churned, the buttermilk is thoroughly worked out and the butter salted with three-quarters of an ounce to the pound. After standing about an hour, it is again worked and weighed, each pound separately.

By Benj. Boynton.—The milk is strained into tin pans. It stands 48 hours in a cool cellar, when the cream is taken off, put into a pot, and stirred once a day.

Churn once a week. After the butter is churned, the buttermilk is turned from it, and water is added twice, and churned, to separate the buttermilk from it. One ounce of salt is used to a pound of butter, which is worked twice after."

## Means of Checking Runaway Horses.

When a Canadian family party, travelling in winter over ice-covered rivulets and swamps, in so unlucky as to cross a place where the horse sinks, they save him from drowning, and themselves from sharing the same fate, by pulling a rope so arranged that it chokes him. The water being thus prevented from entering his gullet or windpipe; he floats on the surface, and it only requires a long and firm pull to bring him to solid ground, when, the rope being relaxed, he quickly recovers his wind, and is ready once more to start on his journey. This plan of saving a horse by suffocating him is spoken of by the Canadians as an equally effectual and safe means of attaining the desired end, and it is in universal practice. A similar means of stopping runaway, and subduing infuriated horses, whether in riding or driving, has lately been adopted by Mr. Miller, an ingenious saddler, of Lothian-street, Edinburgh, not in consequence of any knowledge of the Canadian plan, but as an original idea. It consists of a rein composed partly of a thread-covered cat-gut and partly of common leather, one end of which is attached to the bridle at the top of the horse's head, while the other rests at the pummel of the saddle, or on the splash board or coach box, as the case may be. Running upon the cat gut, partly by means of loops, is a short cross piece of cat-gut, which rests agains the windpipe of the animal, ready to be pulled up against that organ by taking hold of the nearer end of the rein. A quick and firm pull, to stop the breathing of the animal is all that is necessary to bring him to an instantaneous pause. He may be in a state of panic, and running off with the bit between his teeth in spite of every ordinary means of checking him; but no sooner does he feel the stricture on his breathing, than he is conscious of being outwitted and nonplused, and becomes instantly as quiet as a lamb; at the same time he keeps quite firm on his legs—the check not being by any means calculated to bring him down. On the contrary, the position in which it places the horse, his shoulders being brought up, and pressed back upon his haunches, the check is indeed eminently calculated to keep him up. A horse in a gig fitted up with a safety rein, was lately paraded before ourselves in one of the streets of Edinburgh, and the animal was several times in the height of his career (once when coming rapidly down hill,) brought to a sudden stand. We understand that the safety rein is coming rapidly into use; and friends as we are to every thing that tends to diminish evil, and promote the convenience and agreablenss of human life, we cannot but wish to see it in universal application. We feel assured, that henceforth, by means of this rein, accidents from running away, or other violent conduct of horses, may be altogether prevented.—*Chamber's Edinburgh Jour.*

## Food for Fattening Cattle.

The Farmers' Journal, Eng., contains directions for making a composition which is said to fatten cattle remarkably fast, and it appears to be a cheap food. It is prepared as follows. Reduce linseed to very fine powder, about as fine as meal. Put about 156 pounds (15 or 16 gallons) of water into a boiler and let it boil. Stir into the water quickly 2 pounds of the meal, and let it boil about five minutes; then sprinkle upon the boiling mucilage 65 lbs of barley or bean meal, by the hand of one person while another rapidly stirs and works it in. The whole will now be about as thick as pudding, and the fire should be put out, when cold it will be stiff. Some farmers put it while hot into moulds like those for bricks, though somewhat larger. The moulds are lifted up, and the cakes left to cool. Or put it into a tub and ram or press it down, with a rammer with a flat wide end, in order to exclude the air.

At first the compound should be given in small quantities of 5 to 7 lbs, when it may be graduully increased to 14, 21, or 28 lbs. per day according to the size of the animal and other food given. If bean meal be used instead of barley, 20 or 30 lbs more of water will be necessary. The beans should be ground as small as fine meal or flour, else the large parts will pass the animals undigested.—*Boston Cult.*

## Improvement of Stock.

We have now in this country, almost all the different and very distinct breeds of Europe, from the noble and aristocratic Herefords, for whose introduction we are indebted to Henry Sotham of Hereford Hall near Albany, and who, it will be recollected, took all the premiums offered for that description of cattle at the state society at Poughkeepsie last autumn—down to the diminutive and insignificant looking Jerseys, Alderneys or Guernseys, whose "bags of bones" are only to be equalled by their *bags of milk.* And it is only for us to do as they have done in England, namely, to choose the best breed from them, with the care that has been bestowed on favorite races there and in this country also—the Short Horns and the Improved Berkshires, for instance—and nothing more need be done, to render us quite independent of all foreign countries whatsoever.

I have denominated the Herefords, *aristocratic*; and although the term might appear to some far fetched, I can assure them, it is not the less *far famed.* At this season of the year, the English nobility have returned to their Town Houses in London, with their families and enormous establishments; and then it is, that the ribs, rumps, rounds, and surloins of beef constitute the standing dishes on their side-boards. And it is a fact, as the Smithfield Market Journals can testify and there prejudice never enters, that no other breed of oxen furnish such *aristocratic* cuts as the Herefords; indeed, as the countryman once said of such beef, "The very sight on't makes one's teeth step wet-shod." This, however, is said, witbout the least disparagement to other breeds—the Red Cattle of the Eastern States, of such pure and distinct blood as proverbially to have preserved their identity from the days of the Pilgrims, and in the breeding of which no horror need be feared that we shall approach too near the bonds of consanguinity; the Short Horns, proved and improved, as well as the little yellow white faced cows of some of the counties of Jersey, whose features and points indicate that they are *all milk*, as far as the eye can distinguish them. All these are excellent, and peculiarly adapted to particular situations and circmstances; the only fear is, that we shall transgress the laws of Nature in our selections, and then we might as well expect to gather figs from thistles.—*Alb. Cult.*

L. Duckett.

Number of Bees and Cells in a Hive.—A bee-hive which was opened by Swammerdam, was found to contain one queen bee, 33 males or drones, 5,635 working bees, 45 eggs, and 150 worms. Total population 5,854—for whose accommodation there were 3,395 wax cells for the use of the working bees, 62 cells containing bees' bread, and 236 cells in which honey had been deposited; in all 3,920 cells. From this observation it may be presumed that the hives contain 5,000 to 6,000 inhabitants, among which there is only one female, viz., the queen bee, and from 3,000 to 4,000 cells.—*New Far. Jour.*

It is not known where he that invented the plough was born, nor where he lived or died; yet he has affected more for the happiness of the world than the whole race of heroes and conquerors, who have *watered* it with tears and *manured* it with blood.

The true way of enriching ourselves is by cutting off our wants.

# MICHIGAN FARMER.

JACKSON, MARCH 1, 1845.


Immediately after taking charge of this paper, the present editor set about making arrangements for a regular supply of engravings. He has now the pleasure to announce that his efforts have been successful, and that he will be able to furnish every number of the next volume, with these very necessary embellishments. He would be glad to insert them now if he had them: but as they are necessarily procured from a distance, sufficient time has not yet elapsed for their transmission.

## New Seeds.

The following seeds have been sent to the Michigan Farmer, from the Patent office at Washington:

Tuscany Winter Wheat; another variety not designated: Large Oregon Corn; Improved Dutton Corn, (151 bushels to the acre;) Smith's Extra Corn; Small Corn, (for pickling;) Early Sugar Corn; Egyptian Corn; 3 kinds of Tobacco; Brown mustard, (for field crop—crop of 27 acres brought $1600;) Polish Oats; British Queen Pea; (New, and imported from England. Very superior kind of late pea;) Waterloo Blue Pea, (Late dwarf. Imported;) Multicole Rye, (Best kind. Sow in fall;) Horticultural Pole Cranberry Beans; Rice; Large Scarlet Radish; Early Turnip-rooted Beet; Half long blood Beet; Porter's Chilian Pumpkin; Extra long green Cucumber; Cup (extra) Parsnip; Victoria Rhubarb; Round Savoy (extra) Spinach; Double or curled Parsley; Spurry, (seed imported from England, 1844. Fine winter pasture for sheep or cattle; sow in the fall. Also excellent for milk and butter.)

It is a matter of great public utility to have seeds thus exchanged between different sections of the Union, and new and valuable kinds distributed to every quarter. It is well known that seeds have a new value imparted to them, by being transmitted to a different climate and soil. The wheat growers of England place great importance upon getting American seed wheat: and justly; for they find the yield is thus increased 25 per cent. A like advantage attends the sowing of foreign seed in our country. So that this interchange of seeds is of much importance, independent of any inherent qualities in the grains, or other vegetables so interchanged. But besides this, new varieties are constantly discovered or produced, which are valuable accessions to the stock of the farmer or gardener.

In saying this, we have not forgotten the various humbugs that have been passed off upon us farmers, in respect to some of these new varieties. We remember the Rohan potatoe, the China tree corn, etc., to say nothing of the Morus Multicaulis, for we believe a few still contend that that has not even yet been fairly tried. Now we profess a deadly hostility to all the humbug family. But it is no good reason for rejecting every thing that is new, that some of these novelties have been tried and found wanting. The rule should be, "Try all things,—hold fast that which is good."

We wish to distribute the above seeds among good careful farmers, who will turn them to the best account, and would impose but one condition, which is, that they return us a portion of the seeds which may be produced from these, to be again distributed to others. Such varieties as shall prove to be most valuable, we will endeavor to send to every inhabited county in the State.

## The Weevil.

A correspondent of the Tennessee State Agriculturist gives an experiment upon the weevil in wheat. In 1843 he filled a hogshead with wheat, shortly after harvest, throwing in a handful of common salt with each half bushel. It remained perfectly dry, sound, and free from weevils, until it was sowed in October. In 1844, a part of the crop was cleaned out immediately after harvest, and spread in a dry garret: the weevils soon ruined that. A part was put in a granary in the chaff, and was partially injured by the weevil. The residue was placed in a hogshead, as before, a pint of salt being sprinkled on each bushel, where it remained as sound and dry as when put up. The salt was not absorbed, and might be sifted out, and used for stock without loss.

## Sheep.

Immense numbers of this profitable animal are said to be pouring into Missouri, Illinois, Wisconsin, and Iowa. Such has been the demand, that the price in Ohio, from which state the supply largely comes, has risen 100 per cent. Why is it that we do not see Michigan mentioned in this list? Is it that her climate or soil are less adapted to the profitable rearing of sheep than her sister states and territories? Assuredly not. The concurrent testimony of all practical farmers engaged in the business among us, goes to show that she is peculiarly favored in both particulars. Is it that a judicious system of farming does not require the extensive introduction of this animal among us? Not so. By no other means can our farms be so soon, and so profitably brought to a higher state of fertility and productiveness. In every wheat-growing state, sheep are indispensible. The difference in the cost of transportation, too, between wool and almost every other farm product, speaks decidedly in its favor. Is it, finally, because our State is already sufficiently supplied? This cannot be, until more or less shall be found on every farm.

This matter cannot, we are assured, be too urgently pressed upon the attention of the farmers of Michigan. Let it never be said that we have less discrimination to discover what is our best interest, or less enterprise to carry it out, than our neighbors.

True, sheep can be reared more profitably, when we have more clover fields ready for their reception. But, meanwhile, they will do well on the wild feed of the openings, and that of our summer fallows in summer—and on marsh hay, cornstalks, &c., with a few roots in the winter. There are now few portions of the State, in which much danger is to be apprehended from wolves, and where there is, they can be secured by folding at night.

While upon this subject, we would remind farmers of the importance of affording all possible shelter to sheep, during the inclement weather that may be expected during the ensuing month. They will be found quite as ill able to stand severe exposure, after such a winter as the past, as after one of steady cold weather, and it would be enjoined, both by humanity, and good policy, to give sheep warm quarters, during the cold March rains. A neglect of this, will be likely to give the owner a plenty of pulled wool to sell.

We should strongly recommend all who have room, to house their sheep the remainder of the time during which they have to be fed—both with a view to protection from storms, and to prevent their having too early access to green feed. Those who have an under-ground part to their barns, would find such a particularly favorable place.

We are not unaware, that there is a prevalent impression that such confinement would be injurious, tending to generate diseases among the sheep. It is thought that they must have the open air in order to be healthy. But we are persuaded that this idea is in great degree erroneous—especially in respect to fine-wooled sheep—and we found our opinion upon the recent practice of some extensive eastern woolgrowers, as well as that of a gentleman in this State, who is a raiser of pure Saxon sheep, and who pursues with great success the method of housing his sheep during the entire season of foddering.

It is well, no doubt, that there should be suitable ventilation where the sheep are kept. They should not be crowded into too small a space, and not more than a hundred kept together. Yet, to show how far these rules may be disregarded with impunity, a farmer, we are informed, who, the past winter, had been induced for a while, to put his into a barn, instead of having them run at large as before, gave them such close quarters, that there was scarcely room for them to lie down, and yet he declared, after they had been housed five weeks, that they looked better than when he turned them in. Another farmer has kept upwards of two hundred lambs in the under-ground part of his barn, together, in one flock, during the past winter, without once letting them out, even for watering, and they have done well—But in both these cases the sheep were regularly supplied with water once a day.

We expect to present to present to our readers, in our next number, a communication from one of the gentlemen above referred to, containing some details respecting his mode of management.

## Broadcast and Drilled Wheat.

A correspondent of the Farmer's Cabinet gives the details and result of an experiment in raising wheat, designed to show the comparative advantages of sowing broad cast, and in drills.

A field of 38 acres, in clover, was ploughed, dressed with manure, the whole being treated alike. About six acres were sown broadcast, with two bushels of seed to the acre. A week afterwards, he procured a wheat drill, and commenced drilling in the remaining 27 acres, putting in about 10 acres a day, with one bushel and a peck of seed to the acre. The cost of the drill, including the labor of one man, and a horse, was 50 cents an acre. All the wheat, both drilled and broadcast, stood the winter well. But the broad cast looked better, and appeared thicker, both in the fall and spring. When the heads appeared, there was a manifest difference in their length in favor of the drilled wheat: though we think this may be partially accounted for, from the difference in the quantity of seed. Before harvest, five acres were carefully measured off, two of the broadcast, and three of the drilled, and the following was the result:

Nos. 1 and 2. Two acres of the broadcast surveyed together.
2 bushels of seed to the acre.
75 shocks.
55 bushels wheat, or 27½ bushels to the acre.

No. 3. One acre drilled, adjoining to the above, the land, if any different, rather inferior.
1 bushel and 1 peck of seed to the acre.
42 shocks.
35 bushels.

No. 4. One acre drilled, a little distant from No. 3.
1 bushel and 1 pech of seed.
42 shocks.
35 bushels.

No. 5. One acre drilled, a little distant from No. 3.
1 bushel and 1 peck of seed.
50 shocks.
40 bushels to the acre.

The drill, here used, planted seven rows, eight inches apart, at one time, about three inches in depth. The same may be used to plant corn, equally well..

## Age of Apple Trees.

Experience seems to have proved that seedling apple trees are much longer lived, than those that have been grafted. And in some Eastern journals, farmers are urged to plant seedlings, and let them grow until the quality of their fruit is determined, and then save the good, and engraft the bad. By this method, new and valuable kinds of fruit may be procured, and the trees will be more hardy. This may be very good counsel, where orchards of grafted fruit are common; but it is inapplicable here, where such fruit is comparatively rare. When our orchards shall be well supplied with the choicest kinds of grafts, it will then be time enough to consider the expediency of raising new varieties. Grafts will bear sooner than natural fruit—and this will be considered here, a matter of more importance, than the fact that a seedling tree will live 100 or 150 years, while a graft will flourish but half that time. If we can secure an orchard, yielding excellent fruit for 60 or 80 years, that will do. We, or our successors, can by that time afford to plant another.

## Thorough Farming.

The following specimens of the products of European farming, show the immense products that may be obtained from land by thorough cultivation. Such methods, it is admitted, are only applicable to their full extent, where the prices of farm products are high and that of labor low, but they are certainly admissable with us, to a much greater degree than is commonly practiced.

In Great Britain and Ireland, nearly all the lands that are cultivated, are let to tenants. These tenants pay an annual rent of from four to five pounds sterling. Equal to $20 or $25 per acre. Paying rent at these rates, they have to pay besides, enormous taxes, both to church and state, and find all the means, such as labor, manure, implements, &c., that are necessary to carry on the business of the farm profitably.

In the year 1811, a certain farm in England of 390 acres, was estimated to produce $33,000. The manure that was applied that year was 13,746 one-horse cart-loads. The rent was $12 per acre; and interest, taxes, expenses of cultivation &c., amount $12 more per acre. And yet, after all these disbursements, there was a nett profit of between 6 and 7 dollars an acre to the tenant.

Near London, a hay farm of 160 acres, was rented at $12 per acre. A very heavy expenditure was incurred for manure; yet the tenant, even under these circumstances has become wealthy.

In the Eastern States, and especially in Massachusetts, these thorough methods of cultivation are growing more and more in favor. The farm of Mr. Newhall, six miles from Boston, may be cited as an example. It consists of only sixty acres, a few of which are still in wood. Several acres are taken up by the grounds about the house, in garden, shrubbery &c., and there are eight or ten acres in orcharding; yet the farm supports twenty-five cows, one bull, four oxen and three horses. All this stock is kept on the soiling system. They are fed in the barn, on hay and roots during the winter, and grass, rye, and Indian corn, cut green, and other food carried to them in the summer. The cows average 420 gallons of milk, per year. Mr. N. kept 23 cows for eight weeks, wholly from two acres and a half of corn. Large quantities of carrots, potatoes and beets are grown for winter feeding. Of the winter carrot, he raises 800 to 1000 bushels per acre. The manure from the cattle and horses is pushed through scuttles into the cellar under, where it is kept secure from being washed by the rains, and evaporated by the heat of the sun. Still further to prevent waste in the latter way, a layer of peet muck is thrown over it three or four times a week. In addition to this, some twenty hogs are kept constantly at work, manufacturing manure, being furnished with an abundant supplly of marsh mud, peat, &c., for this purpose. We are not furnished with an account of the annual profits of the farm—but we presume them to be large. Each cow furnishing 420 gallons of milk, which is sold at the farm for 14 cents a gallon, gives us as the annual product from a cow $58,32: which for the 25, (supposing all the milk to be sold) would be $1460. Besides this, fruit to the value of $300 was sold from the farm the last year.

## Potatoe Blight.

The eastern agricultural papers have been filled with dissertations concerning the potatoe blight. The attention of many skillful and scientific farmers has been directed to the subject, and numerous experiments have been made with a view to ascertain its cause, and devise a remedy. As this vegetable disease has not as yet, and perhaps may not make its appearance extensively in this State, we think it unnecessary to publish much concerning it at present; but we shall keep an eye upon the investigations carried on elsewhere, so as to be prepared to communicate all practicable information, should it be needed. Meanwhile, we insert here, a few results, gathered from the N. E. Farmer, which are considered as established.

As causes of the disease, the following theories are proved fallacious:

1st. Manuring in the hill; 2d. Excessive heat in September; 3d. Deterioration of seed.

Next, as securities against the disease, the following measures were of no avail: 1st. Early planting; 2d. Late planting; 3d. High planting; 4th. Low planting; 5th. Planting on new sward land; 6th. Planting new varieties.

In some instances, lime, ashes, plaster, and charcoal, put in the hills, are supposed to have preserved crops from attack.

Some experiments have tended to show the cause of the disease to be a species of *fungus*—which supposition is somewhat strengthened by the fact, that in one case, corn, growing near the potatoes affected by the disease, had a good deal of smut, while there was little or none on the corn adjoining the potatoes which were free from blight.

Another theory is, that it proceeds from a "honey-dew."

The most efficient remedy that has yet been made use of, appears to be salt: applied either as a dressing to the whole field, or to each hill separately.

P. S. Since writing the above, we have received the Farmers' Monthly Visitor, which assigns yet another cause for the disease, which is supported by ocular demonstration.

It is brought to light by the microscope. Mr. H. M. Paine, of the optical works at Oxford, Mass. has applied a glass that magnifies 9000 times, to the diseased parts of the potatoes, and finds them filled with animalculae, with bodies like the soldier ant, and legs like the hairy garden spider. He thinks there is no epidemic among potatoes, but that the disease is caused by these insects.

It certainly seems quite probable that this conclusion is correct. But it still admits of question whether these insects stand in the relation of cause, or effect—whether they do indeed produce the disease, or only come to prey upon the fungus, honey dew, or other product of the diseased action of the vegetable.

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For the Michigan Farmer.

## Planting Orchards.—No 1.

Mr. Editor:—Perhaps a more acceptable offering cannot be made to your readers than occasional hints on the subject of fruits. Every man, as soon as he becomes the owner of a lot of land, begins to think of setting out an orchard and fruit-yard; and judging from the manner in which this is frequently done, one unacquainted with such matters would suppose that it required little thought or attention, further than to get trees bearing the appellation of Apple, Pear, Plum, ect: But the man who is anxious to make a good selection of fruits will encounter difficulties of which he little thought when he first set down to make his selections. It will be my purpose, in this and subsequent communications, to aid such in their efforts to fill their yards with a succession of good fruits. To such then I would say, do not be too anxious to obtain trees of a large size. Fibrous roots alone furnish or gather food for the plant or tree. New mouths and feeders are furnished yearly to the tree by a simple law of nature, and if a tree or plant fails to do this, it will soon perish; these generally put forth at or near the extremeties of the roots; as the tree advances in age these become further and further removed from the body of the tree. In taking up trees of large size these feeders are invariably cut off, and before the tree can send forth fresh branches new feeders have to be forced out of the roots retained, which are those next the trunk, that have by age become hard and partake more of the character of wood, than of the root; hence it will require a vigorous effort of nature to make the tree strike: failing to do this, the tree dies as a matter of course. No such difficulty occurs in trees of medium size and age. Their roots are yet tender, and usually cluster immediately around the body; so that in lifting them, the roots are preserved almost entire, and the chance of their living is far greater than that of trees of larger growth. Too much care cannot be observed in procuring healthy trees; do not then, select your trees from nurseries that have been suffered to grow up to weeds or grass. If you do, you will sooner or later find to your sorrow, that you have a diseased orchard which no care or cultivation can cure. Having taken pains to procure healthy trees, do not bring on disease and a premature death, by neglecting their culture. As well may you hope to raise a good crop of corn by neglecting to dress it, as hope to raise a healthy orchard without carefully and thoroughly tilling the ground for at least twenty years, and supplying it liberally with manure. Leached ashes, swamp muck, lime, and chip litter afford excellent food for trees. If a supply of these cannot be obtained, use barn-yard manure after it is thoroughly rotted, but not otherwise. If the soil be a stiff clay, cart on a liberal supply of sand, and let it be thoroughly mixed with the clay by repeated plowing. The Apple, Pear, Plum and Quince will flourish tolerably well on a moist soil, but the Peach, Nectarine, Apricot and Cherry require a dry soil, especially the three former. Better burn your trees at once, than attempt to grow *them* upon a damp cold soil. A dry sandy loam is the soil best adapted to their growth. *Buy grafted trees.* Some, perhaps most of those who purchase natural trees, intend at some future time to graft them; but this is generally neglected till the trees begin to bear fruit. If the fruit be of fair size, and the quality tolerable, the owner will, in all probability, be contented to feed upon mere trash, while his more liberal neighbor is living luxuriantly upon the finest of grafted fruit: this is not all. The latter can get his four and six shillings a bushel, while the former cannot obtain over two or three shillings; as fruit increases, he can find little or no market for his common fruit. But suppose Mr. A. now sets about grafting his orchard; he will find, before he gets them into bearing, it will have cost him at least one dollar a tree, (I speak from experience,) besides the loss of their fruit for three or four years. But to show the bad economy of Mr. A. we will suppose that he purchased 100 trees at $12,50. Mr. B. his neighbor, purchased at the same time one hundred grafted trees at $25,00. Mr. A in the course of 8 or 10 years grafts his, at an expense of say 50 cents a tree: which added to $12,50, the original cost, will make the sum of $62,50—deduct $25, the cost of Mr. B's orchard, and Mr. A. will have the sum of $37 50 to set down to the account of bad economy, besides the loss of fruit for three or four years: and add to this that his orchard will not be so healthy, or so well shaped as his neighbor B's, and who will not say that Mr. B. acted the most wisely?

After having made your selection with care, do not be too credulous. 'Tis not quite certain that Mr. A. or Mr. B. will give you the identical fruit you purchase of him; although he may honestly intend to do so. It is customary with many nurserymen especially those who cultivate little else than the apple, to procure their scions from neighboring orchards. No catalogue of fruits can be relied upon, unless their scions have been drawn from other sources than this. Those who regard accuracy (and those only ought to be patronized) as an essential requisite to a good nursery, will at first adopt the only expedient that will secure it, by producing the fruit itself from standard trees, and comparing it with the description given it by standard writers. The inexperienced cultivator of fruit will, after all, have to rely more or less upon the opinion of others respecting the quality of fruits he may select. Hence his trees should be selected from such nurseries as have a reputation for accuracy, and whose proprietors have given their personal attention to it; or, in other words, who are *practical*, as well as scientific men, and who bear a character for strict honesty and integrity.

Oakland.

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Cultivation of Turnips.—The editor of the London Gardner's Chronicle, speaking of the fertilizing tendency of the turnip crop, says: "We have seen fields so cultivated that a handful of earth could not be taken up in them which was not full of these silk-looking fibres, (roots,) and so vigorous was the growth of the crop in that part of the field, that on digging a pit these fibres, (recognized by their appearance and taste) were found to have penetrated to the depth of *five feet!*

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He gets a great deal of credit who pays but a small debt.

## Mechanics' Department.

### New order of Architecture.

We find mention made in the Baltimore Clipper of a new style of architecture the invention of a self-taught mechanic of that city, by the name of Hayden, who has designated it as the "Crystalline Order." The Clipper states that Mr. Hayden has "dared to venture into the field of experiment, despite the regular course of all scientific men, who have contented themselves with the old orders of architecture adopted centuries ago, and we hope he may realise the fondest hopes of those who desire the success of science, especially when it is to be produced by native genius."

The description of the invention is given as follows:

The design consists in the application of the simple and beautiful forms of crystals to an order of architecture as envolved in the delineation of the octagon, applying any polygonal figures or multilateral figures varying in form, as the principles appertaining to one will apply generally to the other. By drawing the form of an octagon on a plain surface, the diameter of which will be one eighth of the height of the column; also another interior of the first, intersecting in the centre the face of the first drawn octagon by the angles of the latter. The last drawn figures to constitute the upper shaft of the column. In drawing these two octagons the geometric lines cross each other, forming angles exterior of them, and by drawing one or more polygons exterior of those first drawn will be produced a number of cystal shapes forming the basis of the column, which are carried up in the elevation in graduation of diameters or portions thereof. The capital is produced in the same manner with crystal shaped drops. The entablature is produced by rectilineal forms and crystal drops. Beneath the plancea of the Tympanum is placed a trigon and a cubical drop alternately.

The principle of the order is rectilineal throughout, simplifying the forms, and rendering the application of the chisel and plane easy, thereby diminishing the expense attending the construction.—*Boston Cultivator.*

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An Important Improvement.—A native of Patterson, N. J., named Francis McCully, has recently made an important simplification in the process of spinning cotton. He has invented an improvement of the machine called a Throstle, which competent judges say is likely to work a great revolution in the cotton manufacturing business. The new process requires less than half the power required by the ordinary machine, takes less oil, dispenses with the use of bands, makes a smaller amount of waste, enables one person to attend a larger number of spindles, yet with all its economy in these several respects, produces more yarn and of a better quality. The inventor has already secured patents for his machine in England, France, Belgium, Mexico and this country.—*Phil. Ledger.*

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Steam Whistle.—An exchange paper states that a new application of this melodious instrument has recently been made, to wit, to give warning of the exhausted state of steam-boilers, or when the water in them has fallen to the spot "dangerous." Then, and not till then, the steam gains access to and rushes up a tube there placed and connected with a whistle, which immediately becomes the mouth-piece of the boiler, and shrieks, "I want water, or I shall burst."—*Southern Cultivator.*

### American Cutlery.

"From an early age, we have been accustomed to suppose that all surgical instruments worth having, or at all to be relied upon, must be manufactured in England. Very much of the same feeling is still indulged in, by some of our surgical operators, who are still influencing, if not occasionally controlling public opinion in regard to this subject. There are scores of practitioners who imagine that Evan's lancets are the only kind to be relied upon, on account of their superiority in stock and temper. So it is also in respect to opthalmic instruments. Those, however, who have taken pains to inform themselves concerning the manufacture of American cutlery, know that the English artist cannot produce any cutting instruments superior to those manufactured in New England." So says the Boston Medical Journal. We regret that a British stamp sometimes has to be resorted to in order to effect a sale of American manufactures. Imitations of Evan's lancets, neatly finished, are to be had in our market, and may be found in the hands of operators, who continue to praise them as foreign production. This is an evil readily overcome by recognising the true merit of our own manufactures. The Boston Med. Journal bears witness that Mr. Hunt, corner of Water and Washington streets, has made rapid and ingenious advances in the fabrication of surgical instruments. Let them be tried.—*Ib.*

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### A New Cement.

Major Chase, superintendent of the fortifications along the Gulf of Mexico, has discovered a mode of making a composition, which is said to be decidedly superior to any other known cement. It is composed of mineral tar, a mastic found in the Sessyl rocks of Switzerland, escambiam clay, and pulverized sand stone of black water and perdido, which latter contains a red oxide of iron. The materials are mixed in a kettle over a hot fire, in variable proportions, according to the service required, and are stewed until the cooking is completed. It is applied hot with trowels.—When taken from the kettle, the mixture is perfectly yielding, but it loses this property in about half a minute, hardening under the hottest sun.

It may be made hard enough to emit sparks when struck with a steel, or pliant enough to receive the impression of a boot on a warm day. It may be prepared so as to possess expansion and contraction, or without this property, just as is most desirable. Its adherence to brick, when clean and dry, is equal to that of cement; it clings to iron with such tenacity that one man is required to clean the trowels used by another in applying it; its adherence to wood is equally as great; it is insoluble in water, and will not burn. It is believed, too, to be free from attrition. The asphaltic covering, which is the only composition now used, having the same object as the "argillous mastic," costs, per square yard, half an inch thick, from $1 50 to $2, whilst the same quantity of the latter mastic costs 50 cents. This new substance will prove invaluable as a covering for roofs, terraces and side-walks, as lining for cisterns and cellars, and as a cheap and efficacious covering for piles, as it not only resists the worm, but preserves the wood.—*Boston Cult.*

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The largest power loom shed in the world.—Messrs. Ainsworth & Son, cotton-spinners, of this town, have now nearly completed their most extraordinary power loom shed. The building covers one and three-eights of an acre of ground, and will hold 1,650 pairs of looms, which will require 825 hands to superintend them, and 75 horse power to drive them. The shafting connected with this monstrous shed is now finished; its length is 6,500 feet. When the whole of the looms are in motion, they will require 28,000 feet of strapping. There are 3,000 feet of gas piping, and 825 lights will be required.—The roof contains 340 windows, or sky lights, and is supported by 325 pillars. When the whole of the looms are in motion, they will turn off fifty yards of cloth per minute!—*Preston Chronicle.*

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### A new Engine of Destruction.

A Mr. Benningfield, of Jersey, has we understand, after a very lengthened period employed in constructing an electric gun, succeeded in completing his object, which he denominates a "Siva." He has exhibited it several times, and demonstrated its amazing effects, which are most destructive. The continuous and rapid flight of balls discharged is scarcely credible. The simplicity of this wonderful work of mechanical art, as a projectile, is such that it can be easily removed from place to place. It contains within itself the means of continuing, to an indefinite period, its power and capability of destruction.—A dozen of these guns would rapidly thin and even annihilate an opposing force, were it never so well manœuvred.—*Boston Cult.*

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### Machinery.

In the crafts of boot and shoe-making, machinery is beginning to show itself—and we may not estimate the progress it will make in this department, even in our own day. Certainly skill in handicraft will afford a very insecure dependence for our children.

In rope-making the machine has taken almost entire possession. The recent improvements enable four or five men to do the work of ten times that number of regular hands.—Such is the distress and desperation that this change has created among the workingmen, that several machine houses, have recently been destroyed in this city by incendiary fires. They were however, immediately rebuilt, and are now in full operation.

A machine for making bricks is now at work in Washington. It can mould 30,000 bricks by the power of a single horse. These are turned out perfectly dry—ready for burning. At several points on the Hudson machines are in operation for the purpose of preparing clay for bricks—a laborious process that used to give employment to hundreds of laborers.

Even our bakers are not safe—a powerful kneading machine is coming into use in England.—*Ib.*

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Valuable and Ingenious Invention.—We have been favored by Mr. Last, watch-maker, of this town, with a sight of a plan, similar in appearance to an ordinary map, which is so constructed as to enable him from an observation with a circumferenter, to ascertain in five minutes after the appearance of a fire in the surrounding district the precise route and distance of the same. This must be of the utmost importance in facilitating the advance of fire-engines, and other assistance, to the spot, and have a tendency, by causing their prompt attendance, to check the ravages of the devouring element.—*Bury Farmer's Journal.*

## Ladies' Department.

We are sure the wives and daughters of farmers, throughout the land, will thank us for publishing the following pleasant appeal to the other sex, in behalf of their comfort and convenience.—Ed. Farmer.

### How to Make 'Em Good-natured.

It is the every day events, the little things that touch the temper with a smooth or a rough hand, which principally fills up the measure of life, and makes us cheerful, smiling and happy, or cross, snappish and irritable. If we farmers would reap the best of harvests, we should sow the seeds of good nature. In vain we plough and subsoil, in vain for the main object do our fields grow yellow and our abundant corn hang down with weight its heavy head, if, when we gather under our roof at night, the wife is disheartened, the evening meal yet to be prepared, and the neat, tidy dress which is so more than becoming, is still in the draw. "A half an hour lost in the morning, we may pursue it all day, and shall scarce overtake it at night." The good farmer begins at home, and extends his circle of happiness from his domicil. If then he would save the half hour, if he would have all things ready when he returns, and a smile to greet him where either he must live or hear no life, see that every thing is convenient; good dry fuel and water at hand. Wood and water are, during the day, almost in constant demand. If they are at hand, do we not save the "women folk" at least one hour in each day, or about one month in each year, taking the time that we are not asleep? This is equal to one whole year in twelve, which saved is more than equal to the expense of a good dry shed or wood house joining the kitchen, and water in the kitchen itself. Where these things are convenient, the wood dry and split to the proper size, the breakfast, dinner, or supper is ready on the table, the wife is sweet tempered, the laboring men are contented, and get out at their work the sooner, and the farmer himself, while seeing such sunshine and cheerfulness all round, catches the agreeable sensation, and is happiness itself. How does it happen then, that some of us busying ourselves so ardently about our distant affairs, for get or overlook that which is so much used and has so great an influence every day and hour at home? A neighbor of mine, noted for his cheerfulness and thrifty habits, informed me that he owed it principally to attending to the suggestions of his wife. When we began, said he, we had little or nothing but youth and health. "Let us have a wood house, my dear," she said, (this was soon after we were married,) "joining the kitchen, and as our means run short, postpone finishing the chambers, for it is better to be comfortable and happy than to wear the hollow appearance." I took the hint, said my neighbor: the wood house was first attended to, and I have never had a late dinner from that day to this. This example has had more influence than with the family where it originated. When my wife and myself took tea there, now years gone by, it was observed how handy things were. Plenty of good seasoned wood, for months to come, all piled up neatly, the pine by itself for kindling, and a barrel full of shavings to light the fire. "Ephraim," said she, as we were going home at a trot in our dearborn, "Epraim, you must have a wood house. If you had only gone out and seen how perfectly convenient every thing is! Why, I really believe it was not ten minutes from the time the fire was started, that the water was boiling in the tea kettle! It is nothing to cook where things are so handy." I took the hint, and never laid out a small sum that produced me a better return.

Another thing I also learned from my neighbor, and that was, that there is neither economy nor good sense in carting water, or endeavoring to burn it. I cut my fuel in the winter, split and pile it up when the frost is coming out, and leave it in the woods until the ensuing month of November. This was what my wife learned in addition to the wood house; and we carried out the whole plan. As my lot is at some distance, I gain about one day in the larger sized loads from the dryness of the wood, and I greatly prefer the wagon to the sled, and so do my cattle as I think. As to the advantages of using green or seasoned fuel, I am satisfied with the latter, and leave those to burn water who like it.

By and by, the little hand pumps were introduced among us, and all our good natured neighbors copied each other in these advantages also, so that every body said what a thriving people they seem to be down there towards Haverhill.

And I have become thoroughly convinced that while so much is said and written about cattle and crops, soils and manures, there is not sufficient attention paid to the comforts of home, and the saving of labor and temper where we feel it the most sensibly. There is a commendable pride that manifests itself as soon as we give it a chance.

When I had got every thing fixed, and nothing was happier than the process, then I saw that the tins were brighter, the floor was oftener scrubbed, the little flower garden was commenced, and my wife was perfectly delighted when our neighbor Gooding came in last summer and said, "Mrs. Smoothe, how sweet and clean you all are here."

E. SMOOTHE.

—*Far. Monthly Visitor.*

### Marriage.

The marriage ceremony is the most interesting spectacle social life exhibits. To see two rational beings in the glow of youth and hope, which invests life with the halo of happiness, appear together and acknowledge their preference for each other, voluntarily enter into a league of perpetual friendship, and call heaven and earth to witness the sincerity of their vows, to think of the endearing connection, the important consequence, the final separation, the smiles that kindle to exstacy at their union, must at length be quenched in the tears of the survivor; but while life continues they are to participate in the same joys, to endure the same sorrows, to rejoice and weep in unison. Be constant, man; be considerate, woman: and what can earth offer so pure as your friendship, so deep as your affection.

How to Die an Easy Death.—A great many essays, says the Portland Tribune, have been written on the easiest mode of bringing to an end this animal life of ours. One is in favor of hanging, another of drowning, and another thinks a bullet through the heart will produce the least suffering. But we have an easier road to death than either. Although the object may not be so soon accomplished, still it is effectual, for thousands have tried it. We will give you the recipe: Take several strong cords, fasten them around the waist as tight as you can bear it, and let them remain a day or two. Gradually tighten the cords and persevere until your body has the appearance of an hour-glass. Your health will gradually decline; you will feel faint and languid, cannot endure work and will probably have the dyspepsia, liver complaint, and be exceedingly troubled with nervousness. No matter; the work of death will be gradually going on, before many months consumption will be seated, and you will die so easy a death, that your parting breath will be hardly perceptible. If, however, you wish to commit suicide in a short time, wear thin shoes and muslin dresses in cold and damp weather. We have never known this discipline to fail, and it has been tried in a thousand instances.

To Wash Woolen Goods.—All descriptions of woolen goods should be washed in very hot water with soap, and, as soon as the article is cleansed, immerse it in cold water, let it then be wrung and hung up to dry. They will then not shrink.

A person asked Zeno, the philosopher, if wise men ever fell in love. His answer was, "if wise men do not fall in love, beautiful women must be very unfortunate."


PRINCE'S

LINNÆAN BOTANIC GARDEN

*AND NURSERIES,*

FLUSHING, L. I., NEAR NEW-YORK.

THE new and unrivalled descriptive catalogues of this Establishment, (34th edition,) which have cost over $700, comprising this great and select collection of Fruit and Ornamental Trees, Shrubbery and plants: Splendid new dahlias; Bulbous flower roots; Greenhouse Plants and Seeds, with prices greatly reduced, and directions for their culture, will be sent gratis to every post paid applicant. The errors in the Catalogues of others, are set right in these; which by scientific Horticulturists hav been pronounced superior to any that has appeared in any country.

Orders per mail, will be executed with despatch, and in a superior style, and forwarded as directed.

WILLIAM R. PRINCE & CO.

JACKSON COUNTY MUTUAL FIRE INSURANCE OFFICE,

Jackson, January 15th, 1845.

NOTICE is hereby given that an assessment of seven per cent. upon the amount of each premium note was made by the Board of Directors of this Company, on the fifteenth day of January, 1845, and that if any member shall fail to pay the amount so assessed upon his premium note before the twenty-second day of March next, he will, together with his sureties, become liable to pay the full amount of such note with costs of suit. B. M. SHELDON, Sec'y.

ALBERT FOSTER,

*EDGE TOOL MANUFACTURER,*

JACKSON MICHIGAN.

Has opened a New Establishment on Luther Street, immediately in rear of J. Sumner & Co's store, where he will keep constantly on hand all kinds of

*EDGE TOOLS,*

of superior workmanship. The Farmes and Mechanics of Central Michigan are informed that he is at all times prepared to furnish or make to order every article in his line of business.

Jackson, July, 1844. n10tf

**Wanted,**

In exchange for the "Michigan Farmer," or in payment of subscriptions to the same,—Wheat, Corn, Rye, Barley, Oats Potatoes, Pork, Beef, Butter, Ham, Eggs, &c. &c. &c., for which the highest market price will be allowed, if delivered soon.

JOB PRINTING.

Every description of Letter Press Printing, such as Labels, Waybills, Show Bills, Road Bills, Stage Bills, Pamphlets, Handbills, Checks, Circulars, Ball Tickets, Business Cards, Catalogues, Notes, &c. &c., executed with neatness, accuracy and despatch, at the office of the Michigan Farmer, north side of the Public Square, Jackson.

*FARMERS, LOOK AT THIS!*

FARMERS are requested to call at *HAYDEN & Co's. Produce Ware-House,* (the first one west of the Rail Road Depot,) where they can sell or the highest price, in cash, any quantity of WHEAT, GRASS SEED, FLAX SEED, CRANBERRIES, HIDES & SKINS, PORK, LARD, &c.

You can also buy *Plaster,* (a large lot just received,) *Salt,* new and never exposed to the weather,—*Pine shingles, Leather* of all kinds, *Paints, Oil, Water Lime, Plastering Hair, &c.* at the lowest price for cash, or in exchange for Produce.

Jackson, Sept. 2, 1844. 9-3m*

**Foster's Improved Patent Pumps.**

H. & F. M. FOSTER respectfully inform the public that they continue to manufacture and keep constantly on hand, at their Machine Shop, (on the east side of Grand River, near the Rail Road Depot,) in the Village of Jackson, superior Pumps for Wells and Cisterns, made of the best materials, and warranted not to freeze. These Pumps have been extensively in use in the Eastern States, for 15 years, and the increasing demand for them, is evidence of the general satisfaction they have given. 1

Jackson, February 15, 1844.

**Stoves and Tin Ware.**

FARMERS, if you want to buy the best kind of STOVES and TIN WARE, call at Barrett's Tin & Stove Store,—where you can the best, cheap as dirt, for Cash or ready pay. ☞ Sign, Washington's likeness, made of cast iron.

W. F BARRETT.

Jackson, October 1844.

## Miscellaneous.

We learn from the Report of the Superintendent of Public Instruction, that there are reported 80,475 scholars in this state, between the ages of 4 and 18 years; and that of these, 70,277 have been taught the past year in the public schools. Township libraries are rapidly multiplying. We would fain hope that the day is not distant, when every school district, as well as every township in the State, shall have its library of well selected books. On this subject the Report observes:

"The selection of books has been very judicious. For various valuable matter, adapted to readers of all ages, they may be justly esteemed a rich treasure. They are an ample source of general knowledge, and of rational pleasure and amusement. A fondness for books is a very great blessing. One who enjoys it is rarely inclined to spend his leisure hours in the haunts of idleness and folly—dissipation and gambling, with all their kindred vices. Home, retirement, and study, have for him superior interests and attractions. Reading affords him topics of profitable thought and conversation. It exerts a salutary influence on his taste, moral sentiments and manners. It enables many to improve the arts—to enlarge the circle of learning and science. Such are happy and honored while they live—and after they have gone to repose, they shall be long and gratefully remembered as the benefactors of mankind. A studious disposition, like all other propensities, is strengthened by indulgence. A capacity for lofty achievement, in any department of valuable science, is augmented by all wisely directed efforts of the mind in the investigation of truth. This is the food of the soul, and the more it is fed upon, the more its abundance and delicacies are seen and enjoyed."

### University of Michigan.

The catalogue of the Officers and Students of the University of this State for the current year, states that the number of students in the different classes and departments is as follows:

| | | |
|---|---|---|
| Seniors, | 10 | |
| Juniors, | 18 | |
| Sophomores, | 14 | |
| Freshmen, | 11 | |
| | — | 53 |
| Preparatory students, | | 21 |
| Kalamazoo Branch, | | 86 |
| White Pigeon Branch, | | 32 |
| Tecumseh Branch, | | 75 |
| Romeo Branch, | | 105 |
| Monroe Branch, | | 50 |
| Total, | | 422 |

The necessary expenses of a student range from $70 to $100. Ten dollars is charged as an admission fee, and about $7,50 a year for incidental expenses. The institution has a well selected library of between four and five thousand volumes: also a valuable cabinet of minerals, consisting of between four and five thousand specimens; and suits of specimens illustrative of the Geology, Zoology, and Botany of Michigan.

Are the young men of this State generally aware that here is an institution, where they may obtain a liberal education, *free of charge for Tuition?*

If any man doubts that "public opinion governs the world," let him look at two men going out to shoot each other for fear of what people will say in case they refuse to do so.

### Agriculture of the United States.

Report of the Commissioner of Patents.—The tabular estimates of the agricultural productions of the United States, for the year 1843, have been presented to Congress in the report of the Commissioner of Patents, just made. The mass of information embodied in this report shows the growth, increase and prosperity of agriculture in this country.—Much attention has recently been paid to this branch of our industry, and various societies have been formed to promote improvements in agriculture. The discussions at the farmers' clubs have contributed much towards disseminating useful information, and agricultural papers and books are constantly increasing. Nearly every State in the Union has now its agricultural monthly or weekly paper, and in some of the States there are as many as three or four. Volumes of great merit on the subject of agricultural industry also have been published during the past year; and the results of the experiments of foreign agriculturalists are now becoming more easily accessible to the farmers of our country. Science has already conferred immense benefits on this portion of our people. By the aid of chemistry, it is asserted that the wheat growers of France have succeeded in doubling the product of wheat in that kingdom, and now annually harvest more wheat than is grown in Great Britain and the United States. Science, too, has enabled the agriculturists of England, not only to cut twice as much hay from an acre of land now as they did twenty-five years ago, but to keep twice as many cattle, sheep and swine on the same amount of food they did; and, of course, to make twice as much beef, mutton and tallow, wool, butter and cheese from any given amount of vegetable food.

In compiling the tables contained in the report of the Commissioner, Mr. Ellsworth, some advantages have been enjoyed for a nearer approach to accuracy, with respect to particular crops, than was the case in the former reports. The population of the United States is estimated at 19,183,000. The number of bushels of wheat raised in 1843 was 100,310,856. Twelve millions and a half bushels by New York State, twelve millions and a quarter by Pennsylvania, and nearly nineteen millions by Ohio. The State which raises the greatest amount of oats is New York—nearly twenty-five millions; Pennsylvania is next—nearly nineteen millions. The largest amount of rye is raised in Pennsylvania—nine millions and a half bushels; buckwheat, also, two and a half millions. Fifteen millions of Indian corn were raised in Pennsylvania; in Tennessee, sixty-seven millions. Nine millions bushels of potatoes were raised in Pennsylvania; New York twenty-six millions; Maine ten millions. Four hundred and forty-one thousand pounds of tobacco were raised in Pennsylvania, twenty-six thousand pounds of silk, eighteen hundred and seventy-eight thousand pounds of sugar, and nineteen thousand gollons of wine made.—The total products of the whole country are as follows:—Wheat, 100,210,856 bushels; barley, 3,220,721; oats, 145,929,966; rye, 24,280,271; buckwheat, 7,959,410; Indian corn, 494,618,316; potatoes, 105,756,133; hay, 15,419,807; flax and hemp, 161,007 tons; tobacco, 185,731,554 pounds; cotton, 747,660,090 pounds; rice, 89,879,145 pounds; silk, 315,765 pounds; sugar, 126,400,310 pounds; wine, 139,240 galls.—*Balt. Sun.*

Pride goes before and shame follows after.

The Great Telescope.—Our Cincinnati friends, says the Cleveland Herald, with a zeal truly commendable, have established an observatory on Mount Adams, and the Cincinnati Astronomical Society has just received from Europe its great achromatic, refracting Equatorial Telescope. A report on the subject by the Society says:

"It equals the highest hopes which we have ever been led to entertain of its excellence, there being nothing of the kind in our own country, (and but one in the world) in any degree comparable to it, the one ordered by the Government of the United States possessing but about two-thirds its powers and proportions. Its focal distance is about 17 feet, and the diameter of its object glass nearly 12 inches. The hour circle is about 17 inches in diameter, and so divided as to enable us to read two seconds of time. The declination circle is nearly 26 inches in diameter, so divided by verdiers upon a limb of silver that four seconds of an arc may be read. The great Telescope carries a finder, or small Telescope of nearly three feet focal distance. All its movements are perfectly balanced in every position. Clock work is attached to it, which may be so adjusted, as to retain an object in the field of vision for any period of time.—There are fifteen eye pieces, common and micrometrical, with magnifying powers varying from 100 to 1400, besides two circular micrometers and two solar glasses. The object glass is reported to be the best in the world, excepting, perhaps, that belonging to the Emperor of Russia, recently mounted in the Observatory of Pulkova.

Good harvests make men prodigal, bad ones provident.

### Market Intelligence.

Jackson, February 28.

Grain—Wheat is worth 65 a 70 cents; Corn 31½ Oats 16 a 18; Barley 37½; Rye 31½ a 37½.

Flour, per bbl., $3 50.

Provisions—Pork $3 a $3 a $3 25; Butter 15c; Lard 10 cts; Eggs 12½; Beans 75c; Tallow 8 cts.

Dried Apples are worth $1 50 per bushel.

Hides—Green, $3; dry, $6.

Beeswax is worth 25 cents.

### BANK NOTE LIST.

CORRECTED FOR THE MICHIGAN FARMER.]

| | | | |
|---|---|---|---|
| **MICHIGAN.** | | Bank of Buffalo | 65 dis |
| F & M B'k & Branch | par | Clinton county | 30 dis |
| Bank of St. Clair | par | Watervliet | 30 dis |
| Mich Insurance Co | par | Com bank Buffalo | 30 dis |
| Oakland County Bank | par | Com bank Oswego | 30 dis |
| River Raisin Bank | par | Bank of Lyons | 30 dis |
| Mer B'k Jackson Co | | B'k America, Buff | 40 dis |
| Bank of Michigan | 68 dis | B'k Commerce do | 45 dis |
| State Scrip | 3 a 4 dis | Bank of Oswego | 50 dis |
| State Warrants | 34 dis | Bank of Lodi | 20 dis |
| **OHIO.** | | Binghampton | 25 dis |
| Specie paying banks | par | Cattaraugus county | 40 dis |
| Cleveland | 55 dis | Erie do | 50 dis |
| Com bank Scioto | 25 dis | Mechan b'k Buffalo | 50 dis |
| " Lake Erie | 15 dis | Mer Ex bank do | 50 dis |
| Far bank Canton | 60 dis | Miller's bank, Clyde | 20 dis |
| Granville | 75 dis | Phœnix b'k, Buffalo | 40 dis |
| Hamilton | 25 dis | Tonawanda | dis |
| Lancaster | 30 dis | U. S. bank, Buffalo | 35 dis |
| Mer & Trader's Cin | 15 dis | Western New-York | 35 dis |
| Manhattan | 90 dis | Staten Island | 55 dis |
| Miami Exp Com | 60 dis | Olean | 40 dis |
| Urbana bank'g Com | 60 dis | Alleghany county | 75 dis |
| **INDIANA.** | | St. Lawrence Stock & | |
| State bank & bran | 1 dis | Real Estate Notes | 55 dis |
| State Scrip | 30 dis | Stock Notes | 75 dis |
| **ILLINOIS.** | | State bank, Buffalo | 80 dis |
| State bank | 50 dis | Wash'n b'k, N. Y. | 10 dis |
| Shawneetown | 50 dis | Union b'k, Buffalo | 35 dis |
| **KENTUCKY.** | | **CANADA.** | |
| All good banks | 2 dis | All | 2 dis |
| **PENNSYLVANIA.** | | **WISKONSAN.** | |
| Specie paying | 1 dis | Fire & Marine Insurance Co. Checks | 1 dis |
| Erie | 2 dis | **MISSOURI.** | |
| Relief Notes | 5 dis | State bank | 2 dis |
| **NEW YORK, NEW JERSEY, & NEW ENGLAND.** | par | | |